

Medicine Creek

2011 Survey Summary



Nebraska Game and Parks Commission

Caleb Huber, Fisheries Biologist

Fish populations are sampled each fall at Medicine Creek using gill nets, a method commonly used to sample fish found in open water, such as walleye, white bass, channel catfish and hybrid striped bass. Gill nets are set on approximately the same dates and locations each year to reduce variability and allow for trend comparisons of species abundance and size distributions. However, environmental factors can play a strong role in catch rate and composition.

Standard gill net survey catch rates of walleye seemed to have leveled out at a lower rate when compared to historic data. Biologists sampled 3 fish per net in 2011. Due to the lack of success with fry stockings, biologists are stocking fingerling walleye at a heavy rate in an attempt to boost the walleye population. Wiper numbers are also down which is expected because wipers haven't been stocked since 2008. Wipers have been requested and will be reintroduced to provide a additional fishing opportunity and utilize the high density of small gizzard shad.

On the bright side, white bass catch rates took a jump in 2011 to 15 fish per net. This is good news in light of the lack of other fish species. The majority of the white bass sampled were 9-12 inches in length. In addition to these white bass there were 10,000 white bass stocked in 2011 which should will be big enough to harvest in the next couple years. The channel catfish numbers have been pretty stable at Medicine creek for several years. Biologist sampled 5 fish per net with a good size distribution and some fish over 28 inches. Interestingly, channel catfish reproduce naturally in Medicine Creek and are not stocked. This natural recruitment is due, in part, to the watershed above the reservoir and the higher inflows associated with the drainage. In 2011 biologists did a survey of the creek above the reservoir and found good, although sporadic populations of channel catfish. The upstream area is a great place to fish but remember to gain landowner permission before accessing the creek across private ground.

Its also important to note that the Wildlife Division has been doing some brush clearing on areas of the WMA to increase bank access. Primarily these are primitive walk-in areas located on the upper end of the reservoir that were dominated by thick shrubby cover. The clearings will provide some great access for bank anglers who are trying to get away from the crowds.

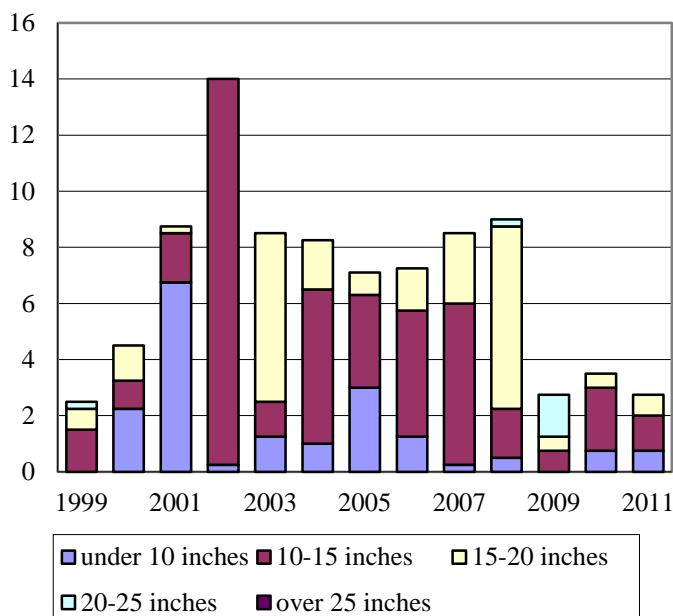
The following text and graphs describe the total number of select species caught per gill net and the relative abundance of fish within several length categories. For comparative purposes it also shows results from previous years.

Walleye

Walleye numbers have been down at Medicine Creek beginning in 2009 and the trend continues with the 2011 survey data. Biologists caught 3 walleye per net in 2011. As a response to this decline, biologists have changed the stocking strategy in an attempt to increase walleye numbers. Fingerling fish are being stocked in high densities along with other predator species to utilize shad numbers which should provide better fishing opportunities in the future.

Walleye fry were stocked from 2006 to 2010 and did not recruit to the population due to high densities of shad, a lack of available zooplankton, and poor water clarity. Beginning in 2011, 93,556 walleye fingerling were stocked and 138,000 walleye fingerling are requested for 2012.

Catch Per Unit Effort

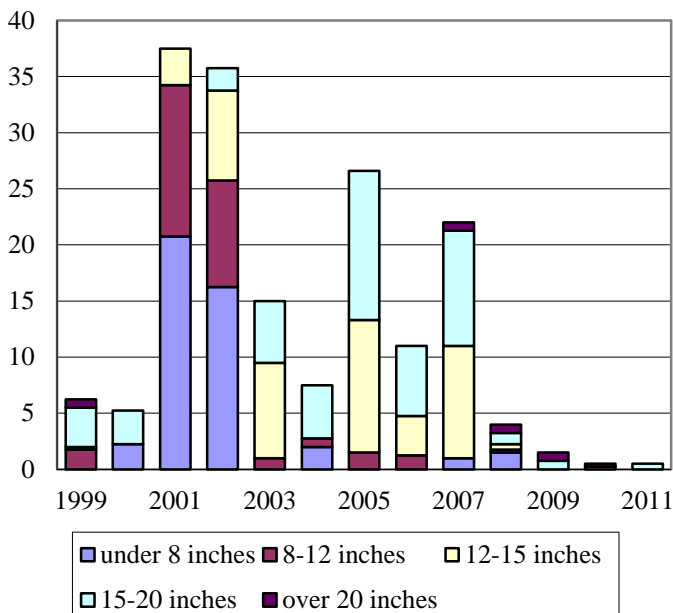


Wiper

Wiper numbers are down again at Medicine Creek with 1 fish per net sampled in 2011. Wiper numbers were suspended in the past in an effort to increase the number of white bass and based on the lack of interest by anglers. However, wipers will be stocked in the future to increase the number of predators in the reservoir in an attempt to decrease the number of gizzard shad.

Wipers were requested in 2010 but Medicine Creek was not stocked. Currently there are 13,800 wipers requested for 2011.

Catch Per Unit Effort

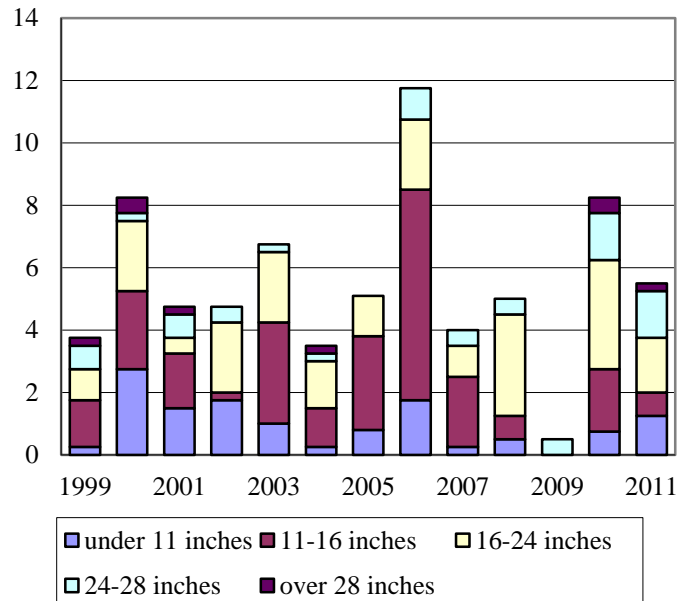


Channel Catfish

Channel Catfish numbers have been consistent at Medicine Creek with the exception of the 2009 sample year. During the 2011 survey biologist caught 6 fish per net. The size of fish sampled was spread evenly across all size ranges. Biologist even caught a few fish over 28 inches.

Channel catfish are not stocked at Medicine Creek because there is sufficient natural recruitment to maintain the fishery. Many catfish anglers also experience success in the watershed above the reservoir.

Catch Per Unit Effort

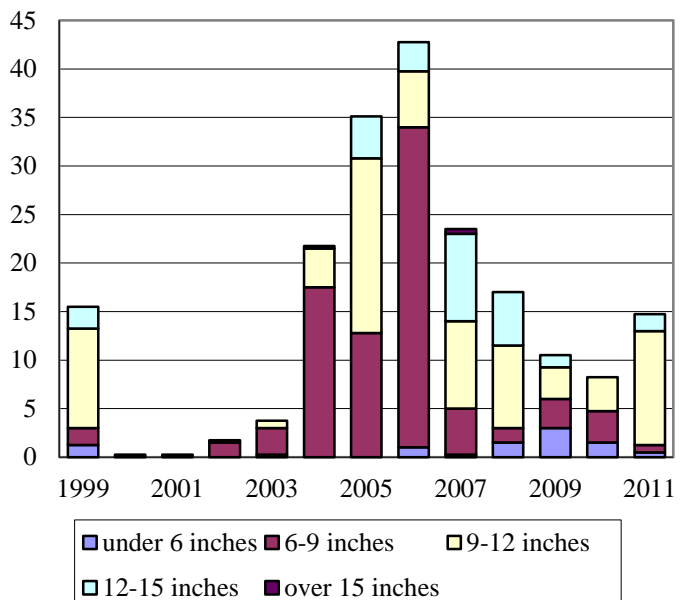


White Bass

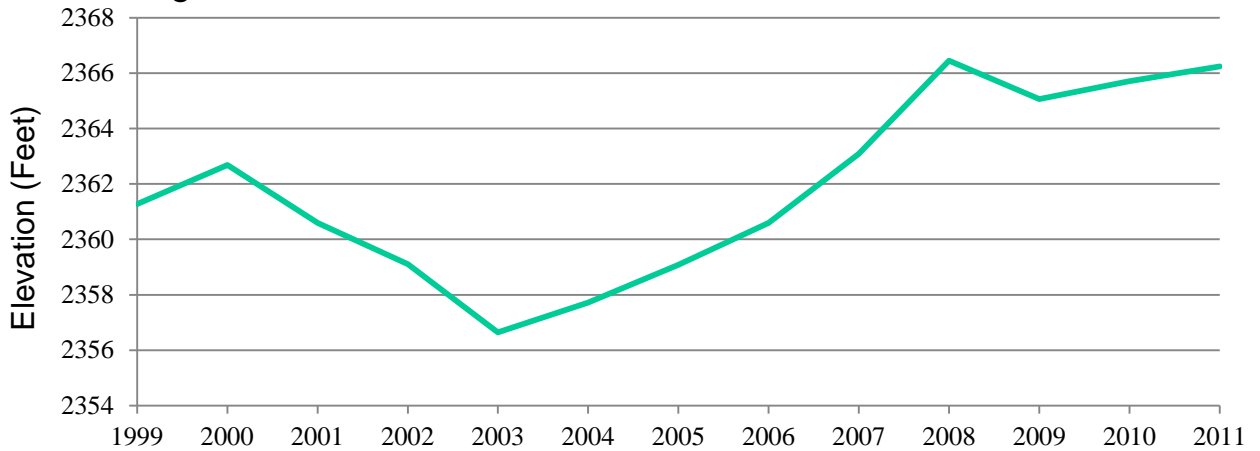
White bass numbers at Medicine Creek increased to 15 fish per net in the 2011 net survey. The majority of these fish are 9-12 inches in length which should provide good angling opportunities in the 2012 season.

In addition to the fish currently in the system, 10,230 white bass fingerlings were stocked in 2011. Due to their size, these fish were not effectively sampled in 2011 but should show up in the 2012 survey. These fish were stocked to increase the fish numbers and give a “shot in the arm” to the current white bass population. There are no white bass stockings planned for 2012

Catch Per Unit Effort



Average Annual Elevation, Medicine Creek Reservoir 1999-2011



Medicine Creek is the only Southwest reservoir that irrigates annually but also refills due to higher inflows. Medicine creek fills each year and the shape of the curve above is related to the amount of irrigation water delivered and the rate of refill.